National policies and plans where climate change and disaster statistics and indicators are required

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Main National Climate Change Challenges

Table 1: Impacts associated with 1 m and 2 m SLR and 50m and 100m beach erosion in SVG

		Tourism Attractions		Transportation Infrastructure		
		Major Tourism Resorts	Sea Turtle Nesting Sites	Airport Lands	Major Road Networks	Port Lands
SLR	1.0m	10%	11%	50%	1%	67%
	2.0m	24%	16%	75%	1%	67%
Erosion	50m	38%	34%	-	-	-
	100m	76%	47%	-	-	-

Simpson et al. (2012). Climate Change Risk Profile for Saint Vincent and the Grenadines.

Figure 3: Land and beach loss at Indian Bay Beach, St. Vincent

Simpson et al. (2012). Climate Change Risk Profile for Saint Vincent and the Grenadines.

Table 1. Summary of the potential impacts of climate change based on model projections.

Climate Change Variable	Projections	Direct Impacts = Physical; Indirect Impacts = Socio-economic	Sources of data
Temperature	An increase in average atmospheric temperature. Regional Climate Model (RCM) projections indicate an increase of 2.4-3.1˚C in mean annual temperatures by the 2080s in the higher emissions scenario.	Direct: impacts on crops through increased evapo-transpiration affecting yields adversely, impacts on water availability, impacts on incidence of vector-borne diseases, heat stress on humans and livestock	Caribsave 2012

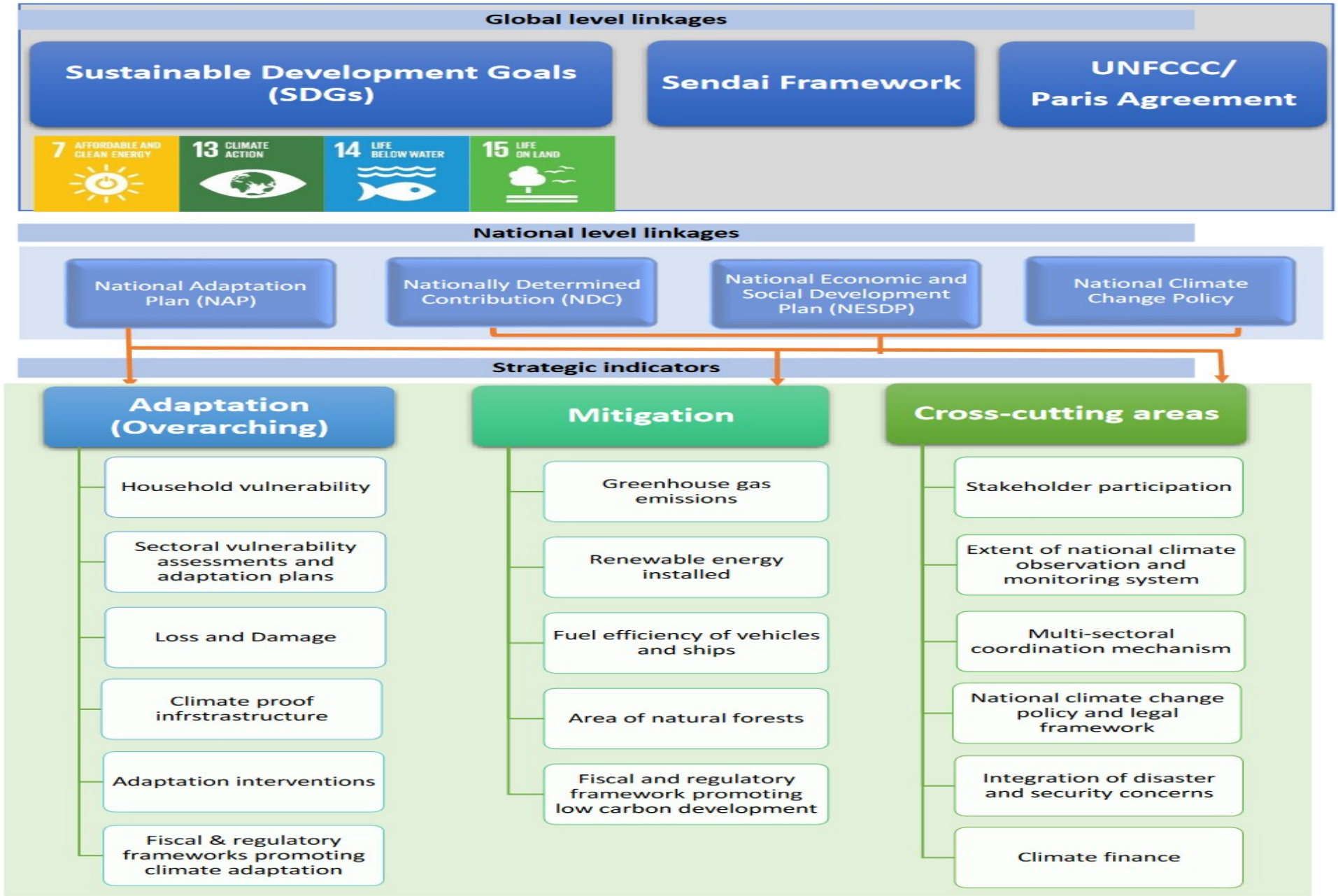
		on energy security with increased demand for cooling.	
Precipitation	General Circulation Model (GCM) projections of rainfall span both overall increases and decreases, ranging from -34 to +6mm per month by the 2080s across three scenarios. Most projections indicate decreased rainfall. Both RCM projections indicate large decreases in total	Direct impacts: Flooding, droughts, damage to infrastructure, soil erosion and loss, increased incidence of pests and diseases Indirect: damage to crops and livestock, biodiversity loss, threatened livelihoods, loss of income, increased insurance risks, impacts on food and	Caribsave 2012

Increase in tropical storms and hurricanes	North Atlantic hurricanes and tropical storms appear to have increased in intensity over the last 30 years. Observed and projected increases in sea surface temperatures indicate potential increased intensity of storm events but not	Direct: Damage to settlements and infrastructure, damage to crops and livestock, loss of human life, impacts on water quality via sedimentation and soil erosion Indirect: Threatened livelihoods, loss of income, increased	Caribsave 2012

National policies to address environmental and climate change challenges

- National Economic and Social Development Plan (NESDP)
- National Climate Change Policy
- National Adaptation Plan (NAP)
- (draft) Agriculture Sector NAP
- (draft) Water Sector NAP
- Nationally Determined Contribution (NDC)
- National Ocean Policy
- National Biodiversity Strategy and Action Plan
- (draft) National Physical Development Plan

Figure 3. Schematic of M&E Framework and Global and National Linkages



National M&E frameworks

Strategic indicator	Tells us…	Target	Metric	Desired direction of change	Alignment with global and national targets
Adaptation (overarching)					
Household vulnerability	How many households exposed to and impacted by climate related hazards (e.g. drought, floods, storms and storm surge)	% of households affected by climate related hazards in 2025 remains same in relation to baseline	Number and type of households affected by climate related hazards	↓	SDG 13 (target 13.1), NESDP Goal 4 (objective 4.5)
Sectoral vulnerability assessments and adaptation plans	Whether vulnerability assessments are being implemented in priority sectors to inform climate change adaptation planning and decision making	At least 25% increase in number of sectoral vulnerability assessments and adaptation plans in relation to baseline	Number sectoral vulnerability assessments and adaptation plans	↑	SDG 13 (target 13.2), NAP - Strategic Action 8
Loss and damage	What is the impact and cost of climate related hazards in terms of property damage and loss of assets	% loss of GDP from climate related hazards in 2025 remains same in relation to 2015 baseline	% loss of GDP from climate related hazards	↓	UNFCCC Paris Agreement; NESDP Goal 4 (objective 4.5)
Climate proof infrastructure	How well is public infrastructure able to withstand climate related hazards	No more than 25% of critical infrastructure, including airport, ports, roads and bridges, affected by climate related hazards annually	% of critical public infrastructure (airports, ports, main roads and bridges) affected by floods and storms	↓	NESDP Goal 4 (objective 4.5 and 4.10)
Adaptation interventions	How the impacts of climate related hazards are being	At least one adaptation measure successfully	Number of demonstration/pilot sites	↑	SDG 13 (target 13.1), NESDP

Adaptation (by sector)					
Agriculture					
Agriculture early warning system (EWS)	How well EWS are being developed and implemented to reduce climate impacts and speed up responses by agriculture stakeholders	Agriculture EWS established by 2022, with at least 25% of farmers having access to EWS information	Number of farmers registered for EWS mobile apps or other information services		NESDP Goal 4 (objective 4.10)
Climate resilient agricultural practices	Whether climate resilient agricultural practices, including ecosystem-based adaptation, being implemented by crop and livestock farmers	At least 500 crop and livestock farmers utilising climate resilient practices by 2025	Number, gender and type of registered farmers participating in training and projects involving climate resilient practices		NESDP Goal 1 (objective 1.2) and Goal 4 (objective 4.10), NAP – Strategic Action 9
Coastal and marine zone					
Green infrastructure	Whether green infrastructure, including ecosystem-based solutions, is being utilised to protect and prevent further damage and degradation of key coastal and marine areas	At least 25% of coastal infrastructure projects have integrated green infrastructure solutions by 2025	Number of approved public infrastructure projects in coastal zone integrating green infrastructure		SDG 14 (target 14.2), NESDP Goal 4 (objective 4.7)
Area of coastal and marine ecosystems under protection	Whether coastal and marine ecosystems, which are critical as natural defence against climate hazards and for livelihoods and wellbeing, are sustainably	At least 10% of coastal and marine ecosystems under protection by 2020 to provide natural defense to climate related hazards	Hectares/km^2 of coastal and marine ecosystems designated as protected areas		SDG 14 (target 14.5), NESDP Goal 4 (objective 4.7)

Other Relevant International and regional commitments

- The OECS St. Georges Declaration (SGD) 2040,
- The Escazú Agreement
- The Sendai Framework
- The Convention on Biological Diversity
- The Convention to Combat Desertification
- CARICOM Regional Climate Change Strategic Framework /Implementation Plan for Development Resilient to Climate Change and the Comprehensive Disaster Management Strategy 2014-2024

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

Organisation of Eastern Caribbean States
SGD 2040
"An Environmental Agenda for the Eastern Caribbean"

Escazú Agreement

Convention on Biological Diversity

United Nations Convention to Combat Desertification

Data gaps

- Gender and other disaggregated data
- Ecosystem health indicators
  - Need baseline information
- Ecosystem valuation (damage and loss)
- Linkages between environmental and economic data
- Better geoinformatics data at appropriate scale
  - Establish common boundaries correlated to physical features vs. ‘imaginary lines’
  - Need for standardized definitions of different cadastral units